OAJ control system

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Abstract

The Observatorio Astrofísico de Javalambre (OAJ) is a new astronomical facility located at the Sierra de Javalambre (Teruel, Spain) whose primary role will be to conduct all-sky astronomical surveys leveraging two unprecedented telescopes with unusually large fields of view: the JST/T250, a 2.55 m telescope with a 3 deg field of view, and the JAST/T80, an 83 cm telescope with a 2 deg field of view. The immediate objective of these telescopes for the next years is carrying out two unique photometric surveys covering several thousands square degrees: J-PAS and J-PLUS, each of them with a wide range of scientific applications, like e.g. large structure cosmology and Dark Energy, galaxy evolution, supernovae, Milky Way structure and exoplanets. JST and JAST will be equipped with panoramic cameras being developed within the J-PAS collaboration, JPCam and T80Cam respectively, which make use of large format ($\sim 10 \text{k} \times 10 \text{k}$) CCDs covering the entire focal plane.

CEFCA engineering team has been designing the OAJ control system as a global concept to manage, monitor, control and service the observatory systems, not only astronomical but also infrastructure and other facilities.

We will give an overview of OAJ's control system from an engineering point of view.

Acknowledgments

The OAJ is funded by the Fondo de Inversiones de Teruel, supported by both the Government of Spain (50%) and the regional Government of Aragón (50%). This work has been partially funded by the Spanish Ministry of Economy and Competitiveness through the Plan Nacional de Astronomía y Astrofísica, under grant AYA2012-30789.